HEALTH CARE QUALITY PERFORMANCE MEASUREMENT

Consumer and Provider Views on Key Dimensions of Quality Hospital Care: A Review of the Literature

Rhode Island
Department of Health

Health Care Quality
Steering Committee

QUALITY PERFORMANCE MEASUREMENT AND REPORTING PROGRAM

REVIEW OF LITERATURE

TABLE OF CONTENTS

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Quality Performance Measurement and Reporting Program
Review of Literature

Executive summary:

As efforts to cut costs and restructure health care continue, the need for quality measurement intensifies. Quality measurement and management is one of the most important topics in health care today. There are many structured efforts, which seek to measure quantifiable or technical components, such as infection and hospitalization rates. Other efforts seek to improve processes and outcomes, using TQM and CQI techniques. Still others seek to measure less tangible components of quality, such as consumer satisfaction. However, the health care system still lacks a unified process for assessing and measuring the various elements of quality.

This survey will begin by looking at the lessons in quality assessment from other industries. It will attempt to answer the question of why quality is important, and then compare quality to satisfaction. We will review formal quality measurement efforts, such as those of the Joint Commission on the Accreditation of Health Care Organizations, and other formal entities. We will also explore how various writers compare and contrast technical measurement of quality with functional components of the concept. The latter (functional components) tend to be the way in which consumers evaluate quality.

Lastly, we will draw upon the recommendations of the researchers we have reviewed to identify the most effective way to conduct our inquiry into a more comprehensive definition of quality, and its meaning to physicians, and administrators, but also to patients or consumers.

Introduction

Few concepts are more important or elusive than "quality" in the current environment of health care services. Quality information is important to consumers and providers alike. However, the essential elements of "quality" may be understood in quite different ways and ranked with different priorities among various consumer and professional groups. For example, health professionals may relate to objective and technical measures of quality, such as statistical measures of clinical performance. Lay consumers of health services may base quality on less technically complex and more subjective notions, such as overall measures of satisfaction.

This review of literature on the topic of quality, while not exhaustive, is a survey of current thinking on the issue of quality in health care, with emphasis on hospital care. We seek to broaden our thinking beyond the traditional measures of mortality, length of stay, adverse events and accreditation parameters. Statistical measurement, (i.e. HEDIS, ORYX and other databases) serves some, but not all informational needs. Gaps still exist between physician/administrator quality measurement, and the patients' perception of a satisfying and meaningful (i.e. quality) experience as a consumer in the health care system.

The review was conducted with these key questions in mind:

a) what can we learn about quality measurement from other industries/researchers;

b) what are the key elements of quality as defined by physicians; administrators and consumers;

c) are there gaps, or discrepancies between these groups; and

d) how can this work contribute to the improvement of health care quality in Rhode Island.

Our findings will guide research into the perception of quality among and between physicians, administrators and consumers of health care.

At this time, three powerful trends converge in health care: the rise of the patient as consumer, the introduction of innovative technologies and a new breed of entrepreneurial manager.[1] While patients always played a role in making treatment decisions, there is now evidence that they want to be active in choosing health plans, physicians and hospitals. To this end, they need useful, understandable and credible information.

The President's Advisory Commission on Consumer Protection and Quality in the Health Care Industry spent more than a year discussing this challenge. Its report made more than 50 recommendations to "advance the purposes of continuously reducing the impact and burden of illness, injury, and disability and to improve the health and functioning of the people of the United States." Among these recommendations was a call for the creation of a Quality Forum designed to:[2]

- Identify core sets of quality measures for standardized reporting by all sectors of the health care industry;
- Establish a framework and capacity for quality measurement and reporting;
- Support the focused development of quality measures that enhance and improve the ability to evaluate and improve care;
- Make recommendations regarding an agenda for research and development needed to advance quality measurement and reporting; and
- Ensure that comparative information on health care quality is valid, reliable, comprehensible and widely available in the public domain.

However, current efforts at quality measurement remain fragmented, and fall far short of achieving these goals.

In 1996, the Kaiser Family Foundation conducted a telephone survey of 2000 adults, designed to assess how Americans choose health plans, how they make health care decisions, and to ascertain their level of understanding about quality information. The researchers found that most people (69%) regard family and friends as "good" sources of information about health plans, and that familiarity will drive decisions regarding choice of physicians. Only two out of five (39%) said that they had seen information on quality comparisons,[3] even though the majority consider specific information about quality of care to be "very important". In this same study, researchers found that most Americans –88 percent—envision a role for the government in the quality of health care arena. A majority – 52 percent—think the government should both monitor health providers to ensure a minimum standard of quality and make sure information about quality is available to the public. The American Hospital Association study of consumers of health care, recently conducted in 32 states, supports the concept of "government as protector of quality".[4]

The idea of quality assessment is not new, in either general industry or healthcare. Focus on outcomes measurement in healthcare date back for more than eighty years.[5] Consumer opinion dates back almost a half century.[6] However, the era of consumerism in health care has gained considerable momentum. Cynthia Lengnick-Hall, advises that the integration of customers into the quality process should go beyond the familiar and limited roles that customers played in manufacturing and service organizations.[7] She advocates such practices as acknowledging customers as critical stakeholders, incorporating customer satisfaction as a primary goal of the organization, direct contact with the customer, and generally eradicating the buffers between how organizations

operate, and how customers are involved. She maintains that even though the concept of quality management continues to evolve, the role of the customer remains fairly static. Evidence points to the need to include and involve consumers of health care in a more active and integrated manner. To do this, we will take our cues from lessons already learned from other industries and endeavor to integrate those lessons into health care quality measurement.

Lessons in Quality Assessment From Other Industry Experiences

Newman[8] sees the health care industry in development during the last twenty years from a "cottage industry", which was devoid of the traditional laws of supply and demand and competition, into a competitive and market-sensitive entity. He urges that health care leaders learn from other industries, regarding the evolving role of quality measurement and improvement. Parsuraman, et al[9], were some of the earliest researchers in the field of quality and its determinants in the retail industry. They defined service quality as "the degree of discrepancy between customers' normative expectations for the service, and their perceptions of the service performance." Their work produced SERVQUAL, a 22 item scale for measuring service quality along five dimensions:

- Reliability, (dependability, accuracy)
- Responsiveness, (prompt, with staff showing a willingness to help),
- Assurance, (knowledgeable and courteous employees, who convey trust and confidence)
- Empathy, (caring and individual attention); and
- Tangibles, (equipment, cleanliness)[10]

This instrument has served as the basis for measurement approaches for service quality in real estate[11], higher education [12], and the utility industry[13], among countless others [10]. Researchers tested this instrument in health care settings, with mixed findings. Babakus and Mangold determined that SERVQUAL is reliable and valid in the hospital environment, but also raised questions about the need to measure expectations[14] Cronin and Taylor raise this same concern, and offered an alternative version of the scale.[15] [16] Bowers[17], et al., reported difficulties in translating SERVQUAL dimensions into health care, because the provider-consumer interaction is more intense, and can at times have life and death consequences. Parsuraman, et al, continue to reexamine their work and have recently refined the SERVQUAL Scale, in order to continue to study the gap between expectations and the perception of service performance. [18]

The American Customer Satisfaction Index (ACSI) is another measure of customer satisfaction. Fornell developed this index to measure customer satisfaction, using a number of dimensions: customer expectations, perceived quality, perceived value, customer satisfaction, customer complaints and customer loyalty. It provides consistent measures of satisfaction across companies, industries and economic sectors. The tool uses a simple numerical score—a number between one and one hundred-- and allows a comparison over time.[19] The idea behind this index holds that satisfaction is a cyclical process, which can increase or decrease over time. Each interaction starts out with what the customer thinks will happen, and influences expectations for future encounters. This information tells us that quality is interaction specific. Some approaches to quality measurement lose sight of the fact that each consumer encounter is different, and each will be judged on its own merits. We can learn from the research in private industry—

especially retailing—which has endeavored to measure these expectations. We can also learn from the efforts of private industry to both measure and continually improve quality, using TQM/CQI techniques.

The TQM/CQI Movement

Total Quality Management/Continuous Quality Improvement (TQM/CQI) dominates the process of quality improvement and quality control in the industrial and business world. Edward Deming and Joseph Juran, among others, developed TQM by applying statistical techniques to the production process. It can be defined as "an ongoing effort to provide services that meet or exceed customer expectations through a structured, systematic process for creating organization-wide participation in planning and implementing quality improvements". Moss and Garside contend that too often, in health care, efforts to improve quality of patient care in hospitals are stratified hierarchically. Physicians take responsibility for one aspect, nurses for another and managers for still another.[20] Donald Berwick, M.D., and David Blumenthal, M.D., apply TQM principles to health care. Berwyck measured performance in terms of clinical outcomes, patient satisfaction, error rates, waste, unit production costs, productivity, market share and other measurable elements.[21] Blumenthal combined this with other approaches, which included outcomes measurement, practice guidelines, clinical pathways and disease management protocols.[22] Using case studies, Blumenthal et al, provide an evaluation of progress in health care, using CQI techniques.[23] He maintains that organizational processes represent the objects of improvement in CQI. Their improvement promotes better quality. Paul Turner, reviews ways in which The Williamsport Hospital benefited from the use of CQI

techniques to improve the quality of health care in that institution. [24] He presents a number of successes in hospital processes, measured primarily by patient satisfaction surveys. He connects these successes to Deming's principles: personal service or C.A.R.E., which stand for courtesy, attentiveness, responsiveness and empathy. Chesanow describes the use of CQI to improve the Milwaukee Medical Clinic's efficiency, particularly in terms of ensuring fast delivery of test results from other affiliated hospitals. They reduced waiting times, and found that posting signs about waiting times for results reduced patient concerns. A team of physicians and staff intend to establish guidelines for managing chronic diseases.[25] Blumenthal, [23] points to concrete accomplishments. Administrators resist assigning blame for mistakes and focus instead on detecting problems with process. Activities focus on the health care consumer. His evaluation concludes, however, that CQI has not yet made a sizable impact on the U.S. health care system. Until a profound, organization wide recognition of the need for change occurs, universal commitment to CQI principles will not be achieved.

Why Is Health Care Quality Important?

There are many reasons why health care quality is important. Providers consider increasing quality in health care to be "the right thing to do". The revival of customer service occurred, in part, because service quality, as opposed to cost, distinguishes among health care institutions. [26] Secondly, involvement and satisfaction of the customer affect behavior. Legnick-Hall [7] developed a conceptual model of the consumer contribution to quality, which includes a description of the relationship of perceived quality to satisfaction, and the motivation to change behavior. This is of considerable importance if

you consider the relationship between patient satisfaction and compliance with medical treatment plans. Researchers found a positive relationship between the patients' feeling of satisfaction and compliance with respective medical regimes.[27] [28] [29]

Third, as quality improves, expectations increase. According to Moore and Berry, as consumers become more quality conscious, service firms not only need to satisfy their expectations, but to exceed them.[30] [31] The consequence of NOT meeting expectations received some attention. Researchers identify managing negative reactions, which come from unmet expectations, as a strategic method for ensuring patient satisfaction. Not to do so, is to lose market share and customer loyalty. (Mittal and Zifko-Baliga)[32] [33]. Dube and Menon[34] conducted further research on the relationship of negative emotions to reduced satisfaction. Leaders in the health care industry, therefore, need to anticipate patient expectations, then develop health care services that will exceed them[35].

The more pragmatic argument relates quality to increased market share and a stronger competitive edge. Shetty [36] maintains that quality can advance profitability by reducing costs and improving a company's competitive position. Within the health care industry, competitive advantage is best attained through service quality and customer satisfaction in the minds of customers.[37] Woodside, et al, provided support for service quality influencing service provider choice.[38]

Clearly, there are many reasons why quality measurement is important. The terms quality and satisfaction are sometimes used interchangeably. While they are closely related, there are differences worth noting.

Quality Compared to Satisfaction

Although different, satisfaction and service quality relate closely. Parsuraman [10] suggests that service quality is similar in nature to an attitude. It is related, but not equivalent, to satisfaction. Cronin and Taylor [15] ask whether a provider's objective should be to have consumers who are merely "satisfied" or who consider the experience of their encounter as one which has achieved maximum levels of quality. They suggest that:

- Service quality perceptions should be considered as long-term consumer attitudes.
- Satisfaction should be referred to as short-term, encounter-specific consumer judgements.

The literature indicates a positive relationship between service quality and patient satisfaction with hospital care and a willingness to return to the hospital, or even to recommend it to family or friends[39 40 41]. According to Oswald and Taylor, consumers cannot evaluate medical treatment per se, but must rely on attitudes toward caregivers and the facility itself in order to evaluate their experience. They maintain that there is a strong connection between health service quality perceptions and customer satisfaction.[42]

Measurement of Quality

No discussion of health care quality can occur without recognizing national efforts to measure quality of care. Such formal, structured measurements of quality are the benchmarks for physicians, payers and administrators.

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) seeks to improve of the quality of care through health care accreditation and related services that support performance improvement in healthcare organizations. The

organization developed the Minimum Standard for Hospitals in 1917. Currently it offers comprehensive quality review programs for hospitals, health plans, home care agencies, laboratories, behavioral health care settings, long term care facilities and ambulatory care settings. Standards focus on twelve general categories, which include patient care, leadership, administration, environmental management, patient rights, and patient/family education. These review programs can serve as an alternative to state and federal inspection of the organizations, and are tied to licensure in Rhode Island and other states.

In 1998, JCAHO began to require hospitals, long-term care organizations and health care networks to integrate outcomes and other performance measures into the accreditation process, using their ORYX database. Indicators include such measures as perioperative data, C-section rates, Vaginal Birth After C-section, Length of stay data, rate of surgical site infection and other highly measurable components. Data driven, continuous survey methodology complement the existing standards-based assessment and will eventually allow a standardized set of performance measures for use in the accreditation process.

The National Commission for Quality Assurance (NCQA) assesses and reports on the quality of managed care plans. NCQA provides information that enables purchasers and consumers of managed health care to distinguish among plans based on quality, thereby allowing them to make more informed health care purchasing decisions. The organization focuses on accreditation and performance measurement. NCQA requires that health plans protect and enhance membership satisfaction with services, including surveys, studies of reasons for disenrollment and evidence that the organization uses this information to improve the quality of its service. NCQA reviews this information during

the onsite visits for accreditation. NCQA also requires periodic credentialing of providers. Health Plans will soon be required to provide information according to the HEDIS dataset (Health Employer Data Information Set). This is a standardized list of about 60 measures of quality, access, patient satisfaction, membership, utilization and finance. In some states, including Rhode Island, HMO licensure is contingent upon a successful accreditation review.

The Agency of Health Care Policy and Research (AHCPR), a part of the U.S. Department of Health and Human Services, supports research designed to improve the quality of health care, reduce its cost and broaden access to essential services. The Agency brings practical, science-based information to medical practitioners, consumers and health care purchasers. The Agency's Center for Quality Measurement and Improvement conducts and supports research on the measurement and improvement of the quality of health care. These include consumer surveys and measures of satisfaction with health care services and systems. For example, the Consumer Assessment of Health Plans (CAHPS) Survey, and the Healthcare Cost and Utilization Project (HCUP QI) Project.

CAHPS helps consumers identify the best health care plans and services for their needs. The goals of the project are 1) to develop and test questionnaires that assess health plans and services; 2) to produce easily understandable reports for communicating survey information to consumers; and 3) to evaluate the usefulness of these reports for consumers in selecting health care plans and services.

HCUP QI offers 33 clinical performance measures. It meets short-term informational needs that stimulate CQI efforts in hospitals and community agencies.

These performance measures span three dimensions of care: avoidable adverse hospital outcomes; potentially inappropriate utilization of hospital procedures and potentially avoidable hospital admissions.

At this point, there are many attempts to measure quality from various vantage points. Some researchers argue that quality measurement efforts are fragmented and hard to understand. Gold and Woldridge synthesized information about consumer satisfaction surveys conducted by managed care plans, government and other agencies.[43] Jewett and Hibbard [44] have studied the consumers' comprehension of quality indicators appearing in health care report cards. They found that consumers with differing access to and experiences with care show different levels of comprehension. Consumers understand indicators poorly and interpret them in unintended ways.

Although there are many attempts in progress to involve consumers, some only focus on managed care. Others make assumptions about quality indicators and how they are understood by consumers. There is a need to understand these limitations and to direct our inquiry in ways that will correct for such shortcomings

The Dilemma of Measuring Quality

But what is quality, actually? Can it be counted, compared, or consistent from person to person or situation to situation? Jun[45], et al, sum up the dilemma of service quality measurement:

> Unlike a manufactured product, where quality can readily be assessed, service quality is an elusive and abstract concept that is difficult to define and measure. Ross[46] states that services are not actions and behaviors in and of themselves, but the way customers perceive and interpret those actions. . . . Services in health care are intangible because it is not possible to count, measure, inventory test or verify them in advance of sale. Health care services cannot be stored inventoried or tested for quality. Customer experience,

either directly or vicariously from outside sources, is frequently the only means of verifying whether health care services meets manifest quality.

Second, the nature of service performance diverges from one transaction to another. This "heterogeneity" can occur because the service is delivered by different physicians, nurses and others to a variety of patients with varying needs. Caretakers provide services differently because of variations in factors, such as their specialty training, experience and individual abilities and personalities. Patient needs frequently vary from person to person and from visit to visit. Some seek regular check-ups while others need life-saving treatments. Needs and performance levels may also fluctuate according to the season, day of the week and even time of day. Interactions among physicians, nurses, administrators, patients and timing factors combine in an infinite number of ways to affect the quality of the health care service rendered.

Finally, in health care, production and consumption are inseparable. The services are consumed when they are produced, which makes quality control difficult. This necessitates that marketing and operations functions occur simultaneously. In short, the management of health care quality cannot be separated from the management of its provision. The customers usually serve as participants in the service act.

Despite this dilemma, we will endeavor to study the various attributes of quality, to differentiate between technical and functional aspects, and to explore how these aspects affect one another.

Attributes of Quality

According to Donabedian, [47] Quality is simply an attribute that the technical and interpersonal aspects of medical care manifest in varying degrees. He provided criteria for what constitutes "good care", using the framework of structure (related to physical environment and facilities), process (related to interaction with service personnel) and outcome (the result of the interaction). Donabedian developed seven attributes of health care quality:

- efficacy, (the best result or benchmark for a particular diagnosis)
- effectiveness, (ordinary medicine, or the industry average)
- efficiency, (a measure of cost, or the least costly of two identically effective treatments)

- optimality, (cost-benefit evaluation, or the point at which further resources do not add benefit)
- acceptability, (adaptation of care to the wishes, expectations and values of patients and their families)
- legitimacy, (the community's view of care) and
- equity, (the principle by which one determines what is just or fair in the distribution of care and its benefits among the members of a population.)

Zifko-Baliga, et al., [33] expand upon this model, linking 15 perceived quality dimensions to it in the following manner:

Structure	Building/Technological Environment
	Amenities - Parking
	Billlling Procedures
(Process)	Professional Expertise
Physician	Validation of Patient Beliefs
	Interactive Communication
	Image
	Antithetical Performance
(Process)	Interactive Caring
Nurse	Professional Efficiency
	Individual Reliability
(Process)	Percispacity (insight, acumen)
Support Staff	Skills
Outcome	Physical/Emotional Cure

The theme continues regarding the relationship between expectations and perception of service. Lytle and Mokwa maintain that service quality depends on two variables: expected service and perceived service.[48] They further state that "A health care service product is a "bundle" of tangible and intangible benefits that satisfy patients needs and wants". [49] Two research groups linked perceived service quality on the part of consumers to the level of employee satisfaction with work roles. [50] [51] Both groups maintain that such factors as job design, role clarity, and autonomy affect employee attitudes, which in turn

affect patient experience in the institution. These observations emphasize the need to look beyond the immediate and obvious aspects of satisfaction and to consider other aspects, which affect patient perception of their experience.

Differing Dimensions of Quality: Technical vs. Functional

--Technical Aspects

Jun, et al [45] discussed the two separate aspects of quality, technical and functional, in the following manner. Technical quality means "the material content of the buyer-seller interaction, or what the customer receives." The health care service dimensions that fall more closely in line with the technical aspect of quality are:

- competence (professional expertise, qualifications); and
- patient outcomes. (rate of cure, mortality rates)

Physicians tend to identify quality using these dimensions. They define outcomes as minimizing/curing disease and or rate of cure. This aspect of health care quality exceeds the full understanding of most patients. Physicians have the knowledge of what constitutes the best medical procedures for achieving optimal well-being. Anderson and Zwelling contend that technical quality tends to focus on Donabedian's first four attributes –efficacy, effectiveness, efficiency, and optimality,(bringing about wellness with the best possible result). Thus, excellence in technical quality is the attainment of the best possible clinical outcome. While these attributes seem quantifiable, a problem emerges, as these attributes converge with such considerations as quality of life, cost effectiveness and appropriateness.[52]

O'Brien elaborates on these physician attributes, identifying the following as technical aspects of quality:

- accessibility,
- appropriateness,
- effectiveness,
- continuity, and
- efficiency.

He adds patient satisfaction, which results from meeting patients informed expectations about the outcomes of care, respecting their dignity, values and choices, and providing care with compassion and concern. This last attribute--satisfaction-- relates to the functional aspects of quality.[53]

--Functional Aspects

Functional quality involves the process of *how* a patient receives a service. Administrators, nurses and other medical staff members frequently determine how services are delivered in health care. Patients can better understand functional aspects, by relating them to aspects of their own experience. Examples of functional quality (other than those mentioned above), include

- the quality of nurse/patient interaction; and
- the condition of the environment.

Additionally, Donabedian considers the attribute of accessibility to be a highly subjective attribute. Accessibility of care, the doctor patient relationship and the "amenities of care" will greatly influence acceptability, legitimacy, and equity.[54]

Anderson and Zwelling [52] contrast technical quality with functional quality by defining

functional quality as the customers' perceptions of service received relative to their expectations of what service should be. Most empirical research on service quality measures the gap between perceptions and expectations. [16] [55] [56] [57]

While there is some ease in differentiating technical and functional aspects of quality, there is difficulty integrating the measurement of these concepts. Anderson and Zwelling [52] concur that a high level of technical and functional quality must be maintained by medical professionals. They ask if high levels of functional quality contribute to the perception of higher levels of technical quality, or if functional quality distinguishes between providers of apparently equal technical quality. The best technical quality may not offset poor functional quality (i.e. patients will not want to go to that provider.) At the same time, the best functional quality may not offset poor surgical results (i.e. patients will be afraid to go to such providers). They cite the Cleveland Health Quality Choice Program as an example of an effort to assess technical and functional quality.[58] In this case, technical quality was assessed using severity-of-illness adjusted outcome measurements compared with those predicted by a statistical model. Functional quality was assessed by patient satisfaction surveys. They consider this to be a start in the process of integrated measurement. There are other attempts to integrate clinical outcomes and patient satisfaction, [48] [59] [60] but usually the two components are studied in isolation. Both dimensions of quality are essential, if a comprehensive definition of quality is to be determined. What follows is a comparison of quality dimensions.

A Comparison of Quality Dimensions by Various Researchers

Using focus groups consisting of patients, administrators and physicians, Jun, et al, [45] identified 11 dimensions of health care quality. Eight of these dimensions, tangibles (physical environment, cleanliness), reliability, responsiveness, competence, courtesy, communication, access and understanding the customer, are part of the Parsuraman model. Bowers added caring (personal, human involvement) and patient outcomes (relief from pain, saving of life, or anger/disappointment with life after medical intervention). [17] Another dimension, collaboration, was discussed by all of Jun's groups. Collaboration, he maintains, encompasses the concepts of teamwork and the synergistic effect of various actors in providing health care. It is the "commingling" of the roles of all members of the health care team, including payers, physicians patients, family members and members of the community that define health care quality from the patient's viewpoint. Jun further emphasizes that communication is essential for collaboration because it "fills in the gaps to prevent disjointed service."

Mittal and Baldasare [32] measured the effect of certain quality factors in a physician's practice, and found that physician competence, communication, respect, caring, taking time to learn history, and follow up treatment were weighted more heavily if the patients were not satisfied. The condition of the office environment and waiting time, received lower weighting scores. Alan M. Rees,[61] in The Consumer Health Information Source Book, maintains that satisfaction with hospital care is too often assessed on the basis of amenities that have little relationship to the clinical quality of care. He feels that amenities do not indicate the quality of what happens to people while they are in the hospital and what happens to them after discharge. He recommends the

measures of: respect for patient values, preferences and needs; coordination of care (scheduling tests and procedures); information and education provided; physical comfort (waiting time after call bell sounded); emotional support and alleviation of fear and anxiety; opportunity for involvement of family and friends; provision for continuity and transition to the home environment.

The Massachusetts Health Quality Partnership[62] is a statewide patient survey project designed to meet the dual goals of supporting internal hospital quality improvements throughout Massachusetts while advancing public accountability through public reporting of comparative information on patient care experiences. Fifty-two institutions participated in this study, which accounts for about eighty percent of the state's medical/ surgical inpatient discharges and ninety percent of all childbirth patients. The Picker Institute administered the surveys, which focused on dimensions of care which patients themselves identified as important. The Picker Institute is a nationally recognized organization, which assesses the healthcare experiences of patients across the country. Dimensions measured by the Massachusetts Health Quality Partnership included:

- Respect for patient preferences
- Physical comfort
- Involvement of family and friends
- Continuity and transition
- Coordination of care
- Information and education
- Emotional support

The survey went far beyond general satisfaction or evaluation, asking the patients to report what happened during their hospital stay. Massachusetts hospitals scored above the national average for surveyed hospitals. The findings were strongest relative to the rest of the country in emotional support, and were weakest in continuity and transition.

Comparison of Attributes of Quality Health Care Proposed by Key Researchers

Parsuraman (Ref. 9)	Bowers (Ref. 17)	Jun (Ref. 45)	Mittal/Baldasae (Ref. 32)	Rees (Ref.61)	Donabedian (Ref. 47)	MHCQP/Picker (Ref. 62)
Tangibles	*	*			*	*
Reliability	*	*			*	
Responsiveness	*	*	*	*		*
Competence	*	*	*		*	
Courtesy	*	*	*	*		*
Communication	*	*	*			*
Access	*	*	*	*	*	
Understanding Customer	*	*		*	*(values of customer)	*
	Caring	*	*	*		*
	Patient Outcomes	*	*		*(Efficacy)	
		Collaboration		*		
				Continuity of Care		*
					Efficiency (cost)	
					Optimality (cost/benefit)	

The table reflects the quality attributes identified by various researchers. Explanations can be found in the narrative portion of this document. The table illustrates those dimensions regarded by the researchers as a component of the larger concept of quality.
Researchers are identified at the heading of the column; the quality attributes are found in the far left column or as additions within the column of individual researchers. Reference numbers are found to the right of the researcher's name.

Other studies support the above analysis, at least in part. Seihoff documented continuity of care and caring behaviors in evaluating the use of unlicensed assistive personnel vis-a-vis patient satisfaction.[63] In a study of the British Medical System, administrators, providers and patients, agreed about quality priorities for elderly people. All groups considered improving the quality of life (adding life to years) as important, whereas reducing mortality rates (adding years to life) was unimportant. The key difference between professionals and patients occurred in the importance attached to reducing the burden on family caregivers. (Understanding the patient). Patients attached higher importance to this factor[64]

Swedish researchers developed a reliable and valid instrument to determine the predictors of patients' ratings of quality of hospital care. They measured satisfaction at two separate points during the hospital stay. Significant predictors of quality ratings included: information concerning ones' illness (communication) and perceptions of the staff work environment (tangibles).[65] In a study of emergency department nursing care, researchers found that psychological safety (related to caring/compassion) and information giving (related to communication) contributed significantly to patient satisfaction with nursing care and to the patients' intention to return to the ED.[66]

Young, et al[67] surveyed 2000 discharged hospital patients, nursing staff and managers to compare differences in the relative importance of four key nursing variables: physical care, patient participation in care, patient teaching and pain control.

They found that patients ranked patient teaching of highest importance, and participation in care lowest, but the variation in statistical results was narrow. They maintain that knowing how much importance patients place on an aspect of care is valuable for developing and achieving improvement in that aspect of care. Furthermore, they found gaps in the scores of both nurses and managers when they rated the importance (to the patient) of these variables. The usefulness lies in understanding how the lack of understanding of patients' values and expectations can impede service quality improvement strategies within hospital units.

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Overlaps and Gaps

Based on the literature reviewed, physicians, administrators and consumers mentioned these attributes. The components of this grid will be validated and elaborated through focus group interviews.

Attribute	Physicians	Administrators	Consumers
Tangibles *Appearance,* *Cleanliness*	*	*	*
Reliability *Equal Treatment* *Consistent Treatment* *Billing Accuracy*	*	*	*
Responsiveness *Timely treatment* *Information re Delays*		*	*
Competence *Education,* *Credentials* CQI	*	*	*
Courtesy *Attitude, Privacy,* *Professionalism*		*	*
Communication *Pt. Education* *Interaction* *Time Spent*	*	*	*
Access *Visibility* *Convenience*		*	*
Understanding the Customer *Patient/Physician*	* (understanding the physician)	*understanding the patient	*understanding the patient
Caring *Validation, Empathy* *Compassion* *Consistency*			*
Outcomes *Cure* *Perception of Cure*	*Professional norms (Clinical Benchmarks)	Financial, mission related goals of institution	* (Perception of Cure)
Continuity of Care Hospital to next level of care/home			*
Collaboration Teamwork/Synchrony		*	*

Jun summarized the following findings [45] from his focus groups. We include them here as illustrative of population (physician/administrator/patient) similarities and differences.

- Patient groups displayed more similarities with the administrator group.
- Patient and administrator groups focused heavily on functional quality attributes.
- Physician group focused on technical quality attributes.
- Courtesy was mentioned twice by administrators, eight times by patients, but not by physicians.
- Physicians tend to view themselves more like "scientists" who look to the results, not the personal or human side of their service performance.
- Responsiveness was a strong concern for patients. Time spent waiting for a service can affect the patients' level of perceived service quality, but this perception can be mitigated through effective communication.
- Communication was a common thread found in all three groups as a key dimension of health care quality.
- There is an inherent conflict between the level of communication (doctor/patient interaction) and the ensuing waiting time for patients.
- The definitions used by physicians and administrators for "quality " and "care" seem to be in sharp contrast. Physicians see their role as that of performing according to the norms of the profession. Administrators focus on accomplishing financial and other mission-related goals of the institution.

Summary of Researchers' Recommendations

As interviewers attempt to identify aspects of quality through focus groups, the guiding questions will be based upon the above findings. Additionally, we have attempted to organize our thinking by synthesizing themes, which are presented during this review.

Build Organizational Consensus on what Patients Deem to be Important in Health Care Quality.

- We have not listened to a valuable resource for improving health care quality: the patient. This theme keeps emerging whenever patients are either surveyed, or convened in focus groups. Berwyk, mentioned earlier as a pioneer of applying CQI priciples to medicine, offers a Customer Focus Credo with the following tenets: 1) In a helping profession, the ultimate judge of performance is the person helped. 2) Most people, including sick people, are reasonable most of the time. 3) Different people have different, legitimate needs. 4) Pain and fear produce anxiety in both the victim

and the helper.; and 5) Meeting needs without waste is a strategic and moral imperative. " When the patient enters our gates, all our encounters must begin with a single question: How can I help you? And all the investments of our time, our energies and our dollars must move ever in the direction of the answers to that question." [68]

- Anderson and Narus, discuss the relationship of good business marketing to the understanding of what customers value. Understanding is the key to customer loyalty. [69]

- Young et al,[67] measured the discrepancy between patient perceptions of critical aspects of nursing care and those of nursing staff and managers. There was consistency across 17 hospitals when comparing like types of units (Intensive Care Units, Medical Units, etc.). They claim that without knowing the patients' priorities, there is little hope of addressing them in quality improvement initiatives.

- In this regard, the management of negative reactions in the caregiving situation should be studied and incorporated into any quality improvement initiative. These reactions are significantly related to overall satisfaction and perception of quality. (Mittal/Baldasare, [32]; Zifko-Baliga, [33]; Dube/Menon,[34])

- Vulnerable individuals who are unlikely to participate in focus groups, or respond to surveys can successfully be surveyed using predischarge interview techniques. (Minnick [70])

- The American Hospital Association's nation-wide survey of consumers advises hospital administrators to LISTEN—to staff, to members of the community and to patients to learn more about what is important to them in the provisions of hospital care. The AHA conducted forty focus groups in 18 communities, with more than 300 people participating.[4]

Teamwork

- Blumenthal [23] recommends that professional medical training be directed toward methods which would enhance quality improvement efforts. This would require a stronger emphasis on teamwork and the reduction of professional stratification in quality improvement efforts. Within the institution, a fundamental "shift" in organizational strategy and culture is required to move to a more team oriented/quality improvement approach.
- Moss, [20] maintains that successful improvement of patient care quality requires a breakdown of the stratified hierarchy of quality improvement and a movement in the direction of TQM (CQI).
- Jun [45] refers to the "synergistic" effect that can take place when health professionals listen to patients and concentrate on improving those dimensions that are verbalized.

Involve Patients/ Family Members

- A key example of patient/family involvement is that of the normal birthing process. A pregnant woman and her coach can be trained to identify problems and actions. Specific tasks are assigned, and feedback options are agreed upon. "The customer's role as co-producer is recognized and capitalized on through investment in skill development and managed role responsibilities to enhance both interaction and outcome quality." (Legnick-Hall[7]). The same concept of patient and family involvement is found in the Hospice Movement. Efforts are currently underway to develop measurement tools which will utilize the patient and family perspective to measure the quality of care.[71]

- Parents at the Milwaukee Clinic were encouraged to fill out a "How'd we do?" card. Waiting time in the clinic was reduced by eliminating cumbersome steps in clinic traffic/treatment flow process. Parents are now reporting that children are much more willing to attend the clinic. (Chesanow,[25])

- Jun [45] recommends that family members should be updated frequently on the status of patient/relative while treatment is on-going. Furthermore, patients should be furnished with information about their illness as well as reasons for the waits they have to endure.

Combine Quantitative Methods of Quality Measurement with Functional Dimensions of Quality

- Borrowing from the Donabedian concept of "Optimality", Anderson and Zwelling advocate that health care institutions actively evaluate the effectiveness of their technical initiatives to determine the point of maximum return. Beyond this, if an intervention yields no further benefit, the resources dedicated to it could be freed up to focus on functional quality improvements. They advocate the integration of measurable and quantifiable dimensions—such as clinical outcomes—with functional dimensions such as patient satisfaction. [52]
- O'Brien [53] calls for an expansion of the physician's central role in delivering, assessing and improving the quality of medical care to include a role as patient advocate. "Ensuring high quality health care, care that is effective, appropriate, accessible, continuous, efficient and satisfying to patients, requires that the medical professions expand its traditional role as patients'advocate." He states that satisfaction results from meeting the patient's informed expectations about the outcomes of care, respecting their dignity, values and choices and providing care with compassion and concern
- Starfeld supports the advocacy model.[72] "Missing from all but a handful of studies is the essential first step in the clinical assessment process, recognition of the patient's

problems and needs." She maintains that too much research attention is directed at the management of specific diseases or diagnoses and not the uniqueness of the individual. Such inclusion would make it possible to include patients in their own quality assessments."

- Issel and Kahn maintain that the caring attidudes of health care professionals have economic value to health care organizations through effects on patient satisfaction, physiology, self esteem and compliance. [73]
- Making facilities more pleasant and accessible is another aspect of quality improvement mentioned by all researchers who identify "tangibles" as part of the quality constellation. However, it is important to measure exactly what aspects of facility improvement actually matter to patients. For example, staff training (caring and compassion) may be much more important than decor in emergency departments or chemotherapy units.
- Cultural sensitivity, as a functional dimension of quality is becoming increasingly important as demographics in all parts of the country are shifting. (Salimbene[29])
- The relationship of Satisfaction to Compliance was documented in three separate studies.(Salimbene[29]);(Drug Topics, [28]);and (Harris et al,[27])
- According to Montgomery , acts of caring, especially aiding and communicating are perceived by some patients as being cared about, which can be internalized by some patients as having worth. The increased sense of self worth that results from caring can be a necessary precursor to self-care and compliance with simple or complex treatment regimens.[74]

Consider Patient, Physician and All Staff Members as Customers

- Physicians have been identified as valuing the technical aspects of quality to a greater extent than the functional aspects. Training for physicians which incorporates the functional aspects of quality has been discussed throughout the document. However, in order to implement this strategy, various researchers advocate reducing the bureaucratic burden on physicians in order to make time more available to patients. (Jun, [45]) (O'Brien, [53]).

- The Relationship of employee job satisfaction in relation to customer satisfaction (Adkins, [50]); (Steffen, [51]); and (Dube, et al,[34]) was discussed. It is true that, like patients, staff members are also customers of the institution.

Increase Exposure to and Comprehension of Health Care Information for Consumers.

- In a study which explored consumers' comprehension of quality indicators appearing in health care report cards, Jewitt and Hibbard found that members of privately insured, medicaid and uninsured populations did not always comprehend what was meant by various quality indicators such as the hospitalization rate of children with

asthma or the rate of caeserian section, and whether a high score in an area constituted high quality or the opposite.[75]

- Consumer Reports in health care are relatively new. They are primarily designed to assist consumers in making more informed decisions about personal health care. In addition to this, Longo, et al, also point to positive changes in behavior of clinicians and health care institutions as a by-product of this effort.[76]
- Edgman-Levitan et al, [77] of the Picker Institute summarize the efforts by NCQA and AHCPR to improve the content, design and availability of consumer information. They point out that consumers are asking for a balance of "expert" information on the technical aspects of quality (research, outcomes) but are also interested to know how others "like them" evaluate care.
- AHCPR and the Kaiser Family Foundation are working to better understand the information needs of all types of health care users. The CAHPS project's most recent survey is available through AHCPR.
- The Oregon Consumer Scorecard Project represents a joint effort of AHCPR and the Oregon Health Policy Institute to focus on the informational needs of consumers, as opposed to volume purchasers, as well as to the unique information needs of rural consumers and persons with significant chronic health conditions and disabilities. The project also contains recommendations for useful methods of reporting information to consumers.[78]

Conclusion

In summary, the above research tells us that, in order to define quality, it is not enough to look at structured or statistical methods for doing so. The concept of quality has many dimensions, some of which are difficult to quantify, but no less essential to its definition. This survey identifies that the consumer, in addition to providers and/or administrators, is a key player in the processes of defining and measuring quality and his/her voice provides an important component to the process. We will need to listen to those dimensions by which the consumer defines the experience of health care. We can then incorporate these components into a more comprehensive service quality measurement plan in health care.

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